

Mars Exploration Science Monthly Newsletter

A publication of the Mars Program Office and the Mars Exploration Program Analysis Group (MEPAG)

Issue: March 2008

Next MEPAG Meeting: August 2008 near Brown University, Providence, Rhode Island

MEPAG News

The Mars Exploration Program Analysis Group (MEPAG) Meeting #18 was held at the Doubletree Hotel, Monrovia, California (in proximity of JPL) on February 20-21, 2008.

A report by Jack Mustard, MEPAG Chair for the Executive Committee, will soon be released.

A new feature that was offered for the first time to MEPAG meeting participants was remote participation via WebEx and teleconference to this meeting. (*Thank you George Tahu, NASA Headquarters, for making these arrangements!*). We have had several requests for this service in the past, which came into fruition for this meeting with George's help. I believe there were about 100 remote participants for this meeting. We welcome your comments and suggestions about your WebEx experience. Please send them to my attention, Debbie.A.Calderon@jpl.nasa.gov and I will share them with George and our logistics team. *Thank you!*

Near-term Due Dates (next three months)

Due	Project
3/05	Abstracts—AGU Joint Assembly (May 27-30, 2008)
3/21	Registration—Mars Water Cycle Workshop
3/24	Registration—Ground Truth From Mars: Science Payoff From a Sample Return Mission (April 21-23, 2008)
3/31	Pre-registration—European Geophysical Union (EGU) Meeting (April 13-18, 2008)
4/2008	Abstracts—XV International Conference on the Origin of Life (August 24-29, 2008)
5/07	Abstracts—71 st Annual Meeting of the Meteoritical Society (July 28-August 1, 2008)
5/09	Abstracts—The Fifth Annual Planetary and Terrestrial Mining Sciences Symposium (PTMSS) (June 8-11, 2008)
5/15	Abstracts—Conference on Large Meteorite Impacts and Planetary Evolution IV (August 18-22, 2008)
5/21	Indication of intent—Workshop on Early Solar System Impact Bombardment (September 15-17, 2008)

Upcoming Conferences and Workshops

Type	Date & Location	Event Information
<i>2008 First Quarter, 2008</i>		
	March 3–5, 2008 Long Beach, California	<p>American Society of Civil Engineers' Aerospace Division presents the Earth & Space Conference 2008, 11th Biennial International Conference on Engineering, Science, Construction, and Operations in Challenging Environments</p> <p>Note special sessions/workshops:</p> <ul style="list-style-type: none"> ○ Exploration and Utilization of Extraterrestrial Bodies: ○ 3rd NASA/ARO/ASCE Granular Materials in Lunar and Martian Exploration Workshop <p>http://www.asce.org/conferences/space08</p> <p>(Submitted by Kris Zacny, Honeybee Robotics; Moffett Field, California; E&S 2008 Symposium Chair)</p>
	March 8–9, 2008 Houston, Texas	<p>Brown-Vernadsky Microsymposium #47 – Early Climate and Weathering on Mars</p> <p>Held at the Lunar and Planetary Institute. Focus on early Mars, addressing the geologic and mineralogic evidence for crustal modification processes in the Noachian and Hesperian stages, with particular emphasis on the hypothesized transition period at the Noachian-Hesperian boundary.</p> <p>http://www.planetary.brown.edu/html_pages/micro47.htm</p> <p>Contact Jim Head, James.Head@brown.edu</p>
	March 10–14, 2008 Houston, Texas	<p>39th Lunar and Planetary Science Conference</p> <p>Held at the Lunar and Planetary Institute.</p> <p>http://www.lpi.usra.edu/meetings/lpsc2008/</p>
	March 10–14, 2008	PHX ORT9 (EDL) Operational Readiness Test
<i>Second Quarter, 2008</i>		
	April 13–18, 2008 Vienna, AUSTRIA	<p>European Geophysical Union (EGU) Meeting</p> <p>Deadline for pre-registration: March 31, 2008</p> <p>PS3.2 Session on Mars Science and Exploration will address results from all ongoing missions to Mars, including Mars Express, as well as the future exploration of the Red Planet; in particular: (1) Recent scientific investigations concerning the deep interior and subsurface structure; the surface morphology, geology, geochemistry and mineralogy; the atmospheric composition, dynamics and climate; the Ionospheric environment and its interaction with the solar wind and also water occurrence, astrobiology and habitability issues, (2) Scientific goals and experiments for long-term planned or proposed activities on Mars, including precursor robotic missions, Mars sample return missions and future human exploration.</p> <p>(Submitted by Agustin Chicarro, ESTEC, session convener)</p> <p>http://meetings.copernicus.org/egu2008/</p>

Type	Date & Location	Event Information
	April 15–17, 2008 Santa Clara, California	<p>Astrobiology Science Conference (ABSciCon) 2008 Sessions will be held related to the major scientific themes: "The Astrophysical and Planetary Context for Life," "The Origin and Evolution of Life," and "The Search for Life in our Solar System and Beyond." Note Mars special sessions:</p> <ul style="list-style-type: none"> ○ Approaches and Technologies to Detect Life on Mars (Submitted by Dirk Schulze-Makuch, Washington State University) ○ Session 26: Mars Sample Return Planning Issues http://abscicon.seti.org/ (Submitted by Margaret Race, SETI Institute/NASA Ames Research Center)
	April 17, 2008 Pasadena, California	<p>Mars Odyssey – 41st Project Science Group Meeting Held at JPL. Contact Jeff Plaut, Jeffrey.J.Plaut@jpl.nasa.gov</p>
	April 20–23, 2008 San Antonio, Texas	<p>American Association of Petroleum Geologists (AAPG) 2008 Annual Convention and Exposition—Deliver the Conventional, Pursue the Unconventional Expo held during Fiesta Week at the Henry B. Gonzalez Convention Center. Note special sessions/workshops:</p> <ul style="list-style-type: none"> ○ Astrogeology - A Far-Sighted Look at Unconventional Resources ○ Return to the Moon: Research, Resources, and Rewards <p>http://www.aapg.org/sanantonio/ (Submitted by Cynthia Dinwiddie, SwRI, San Antonio, Texas)</p>
	April 21–23, 2008 Paris, FRANCE	<p>Mars Water Cycle Workshop The Muséum National d'Histoires Naturelles Deadline for registration: March 21, 2008 Detailed information regarding workshop attendance, registration, and abstract submission can be found at: http://www.aero.jussieu.fr/info-pratique/seminaire/MarsWC-Site (Submitted by Franck Montmessin, CNRS/IPSL, France)</p>

Type	Date & Location	Event Information
	April 21–23, 2008 Albuquerque, New Mexico	<p>Ground Truth From Mars: Science Payoff From a Sample Return Mission Hotel Albuquerque in Old Town</p> <p>Mars sample return is again on the horizon, enabled by a sample cache on the 2009 Mars Science Laboratory rover, and endorsed as a logical continuation of the "Follow the Water" strategy of NASA's Mars Exploration Program. This strategy has tied together the search for life and potential habitats for life, evolution of the Martian atmosphere, nature of Martian surface processes, and the thermal-magmatic evolution of the Martian mantle and crust. Orbital and surface missions have revealed that Mars' surface is far more diverse than was imagined only a decade ago, with a plethora of distinct environments — each of which presents different sorts of samples, with different potential scientific returns. Returning samples from these Martian environments and analyzing them in the best terrestrial labs available will provide an unparalleled perspective of Mars not yet achieved.</p> <p>The two-and-a-half day workshop will cover the following session topics:</p> <ul style="list-style-type: none"> ○ Overviews: Mars exploration strategy, Mars sampling strategy enabled by previous missions ○ Sulfates, sheet silicates, and zeolites as recorders of Mars surface processes ○ Astrobiology priorities for sample return ○ Samples (i.e., igneous rocks, sedimentary rocks, regolith) recording Martian atmospheric, fluid, and magmatic evolution and timing of events <p>First Announcement: http://www.lpi.usra.edu/meetings/msr2008/ (Submitted by Kimberly Taylor, Lunar and Planetary Institute, Houston, Texas)</p>
	April 27–May 1, 2008	<p>PHX ORT9 (dress rehearsal) Operational Readiness Test</p>
	April 29–May 2, 2008 Alamogordo, New Mexico	<p>Planetary Dunes Workshop: A Record of Climate Change http://www.lpi.usra.edu/meetings/dunes2008/</p>
	April 29–30, 2008 In or near Laurel, Maryland	<p>MRO PSG 19</p>
	May 5–8, 2008 Oxnard, California	<p>The Science of Solar System Ices (ScSSI): A Cross-Disciplinary Workshop Embassy Suites Mandalay Beach Hotel and Resort http://www.lpi.usra.edu/meetings/scssi2008/</p>
	May 12–16, 2008 Heidelberg, GERMANY	<p>SpacOps2008 Hosted by ESA and Eumetsat, organised by AIAA http://www.spaceops2008.org</p>

Type	Date & Location	Event Information
	May 21-23, 2008 Washington University, St. Louis, Missouri	Mars Express OMEGA-HRSC Data Workshop 3-day workshop at PDS Geosciences Node will provide graduate students, post Doctorals and other Mars investigators with a working knowledge of how to use the Mars Express OMEGA (Observatoire pour la Minéralogie, l'Eau, les Glaces et l'Activité) and HRSC (High Resolution Stereo Camera) data sets. Workshop will provide tutorials and hands-on with Mars Express data, explore data from ESA Planetary Science Archive, use data and tools with Instrument science teams. Workshop attendees are expected to supply their own computers equipped with IDL. Attendance will be limited to 30 participants. Interested participants should contact Tommy Thompson and advise their familiarity with IDL and with Mars Express. Thomas.W.Thompson@jpl.nasa.gov ; (818) 354-3881
	May 25, 2008	Phoenix mission landing on Mars Landing is at approximately 4:30 pm Pacific Time. PHX mission web site: http://phoenix.jpl.arizona.edu/
	May 27-30 2008 Fort Lauderdale, Florida	AGU Joint Assembly http://www.agu.org/meetings/ja08/
	June 1-5, 2008 St. Louis, Missouri	Meeting #212 of the American Astronomical Society http://www.aas.org/
	June 8-11, 2008 Montreal, Quebec CANADA	The Fifth Annual Planetary and Terrestrial Mining Sciences Symposium (PTMSS) Hosted by NORCAT Deadline for abstract: May 9, 2008 www.ptmss.com
	June 10-12, 2008 Monrovia, California	Mars Science Laboratory PSG #8 Held in proximity of JPL
	June 16-18, 2008 Busan, KOREA	5th Asia Oceania Geosciences Society Meeting http://www.interridge.org/node/4893
	June 23-27, 2008 Atlanta, Georgia	6th International Planetary Probe Workshop (IPPW-6) at the Georgia Institute of Technology http://www.planetaryprobe.org/
	June 25, 2008	Mars solstice (beginning of northern summer)
	June 29-July 3, 2008 Fairbanks, Alaska	Ninth International Conference on Permafrost (NICOP) Note special session: Planetary Permafrost and Astrobiology Campus of University of Alaska, Fairbanks Abstracts encouraged from the planetary science community studying permafrost and icy surfaces throughout the Solar System and from the astrobiology community interested in organisms living or preserved in ice or permafrost. http://nicop.org/ (Submitted by Chris McKay, NASA Ames Research Center)
<i>Third Quarter, 2008</i>		
	July 13-18, 2008 Vancouver, BC, CANADA	Goldschmidt 2008 Conference Theme 2, Session #02b: Surface Geochemistry and Processes on Mars http://www.goldschmidt2008.org/index (Submitted by Nick Tosca, Harvard University)

Type	Date & Location	Event Information
	July 13–20, 2008 Montreal, Quebec CANADA	37th COSPAR Scientific Assembly http://www.cospar-assembly.org/
	July 14–18, 2008 Baltimore, Maryland	10th Asteroids, Comets and Meteors Conference Contact: Margaret Simon, Margaret.simon@jhuapl.edu http://acm2008jhuapl.edu/
	July 28–August 1, 2008 Matsue, JAPAN	71st Annual Meeting of the Meteoritical Society Deadline for abstracts: May 7, 2008 Deadline for pre-registration: June 30, 2008 http://www.metsoc2008.jp/
	August 2008	Third MSL Landing Site Workshop
	August 6–14, 2008 Oslo, NORWAY	The 33rd International Geological Congress A disciplinary symposium in Comparative Planetology, with a special session PIP-02 The Geology of Mars and Venus results. Other sessions in Impact Structures. http://www.33igc.org/ (Submitted by Jouko Raitala, University of Oulu, FINLAND)
 	August 11–16, 2008 Arlington, Virginia	Sixth International Conference on Case Histories in Geotechnical Engineering One of the themes is "Application of Geotechnical Engineering in Outer Space, including Granular Material Behavior in Lunar and Martian Environments; Extraterrestrial Mining, Construction, and Transportation Infrastructure Development". http://www.6icchg2008.org
	August 18–22, 2008 SOUTH AFRICA	Conference on Large Meteorite Impacts and Planetary Evolution IV Sunwa River Lodge Deadline for abstracts: May 15, 2008 http://www.lpi.usra.edu/meetings/lmi2008/home.shtml
	August 24–29, 2008 Florence, ITALY	XV International Conference on the Origin of Life Deadline for abstracts: April 2008 Sponsor: The International Society for the Study of the Origin of Life http://www.dbag.unifi.it/issol2008/Invitation.htm

Type	Date & Location	Event Information
	September 15-17, 2008 Houston, Texas	<p>Workshop on the Early Solar System Impact Bombardment Lunar and Planetary Institute</p> <p>One of the legacies of the Apollo program is the concept of late heavy bombardment or a lunar cataclysm that may have resurfaced the Moon and thermally metamorphosed its crust. Several recent studies have continued to test that concept and explore the implications any bombardment may have for our understanding of lunar evolution. It has also been posited to be a factor in the origin and early evolution of life on Earth.</p> <p>The source of the debris is variously described as being from the asteroid or Kuiper belts, which implies any bombardment may have affected planetary surfaces throughout the solar system, producing a complementary record that may constrain the dynamical processes behind the flux of impacting debris. There are hints in existing data that the bombardment may be linked to a dramatic reorganization of planetary orbits.</p> <p>Interest in this theme continues to grow, particularly following a recent National Research Council report about The Scientific Context for Exploration of the Moon that places a test of the cataclysm hypothesis at the top of lunar science priorities.</p> <p>Deadline for indication of intent: May 21, 2008 Deadline for abstracts: July 2, 2008</p> <p>Final announcement and workshop program will be posted by August 6, 2008. http://www.lpi.usra.edu/meetings/bombardment2008/</p>
	September 22-26, 2008 Münster, GERMANY	<p>European Planetary Science Congress (EPSC) University Münster http://meetings.copernicus.org/epsc2008/</p>
	September 29-October 3, 2008 Glasgow, SCOTLAND	<p>59th International Astronautical Congress This event includes a Space Exploration Symposium the whole week, with sessions on astronomy, the Moon, Mars, advanced concepts, and solar system exploration) http://www.iafastro.com/</p>
	October 5-9, 2008 Houston, Texas	<p>Geological Society of America national meeting Deadline for abstracts: June 3, 2008 Deadline for pre-registration: August 2008 http://www.geosociety.org/meetings/</p>
	October 11-15, 2008 Ithaca, New York	<p>40th Annual Meeting of the DPS http://www.aas.org/~dps/meetings.html</p>

Type	Date & Location	Event Information
	October 20-24, 2008 Moab, Utah	Second Workshop on Mars Valley Networks Sponsors: The Smithsonian Institution and University of Virginia Valley networks represent the best evidence that water once flowed across the surface of ancient Mars. High-resolution imagery and topography are revolutionizing our understanding of these features. New spacecraft data have allowed us to quantify a variety of morphometric parameters that can be used to compare valley networks to terrestrial drainage systems. However, because the surface topography has been modified by eolian infilling and deflation as well as by impact cratering, such comparisons are not straightforward. In fact, some of the techniques used by investigators have become somewhat contentious, and the resulting measurements, such as drainage density, have been questioned. Valley networks are also small, linear features that typically do not occupy much surface area, so age-dating these features has been challenging. However, several innovative techniques have been introduced recently that may prove valuable. The workshop will provide a forum for discussing the extraction of watershed information from digital elevation models of the martian surface, age-dating valley network systems, and other quantitative measurements of valley networks. A field trip to look at sapping features in the Colorado Plateau is also planned. Contact nasmworkshop@si.edu , or Bob Craddock (craddockb@si.edu) (Submitted by Bob Craddock, Smithsonian Institution, workshop convener)
	October 27–31, 2008 Florida	10th ILEWG International Conference on Exploration and Utilization of the Moon (ICEUM10/ILC2008) (Dates TBC near LRO launch) http://sci.esa.int/ilewg
	November 10–14, 2008 Williamsburg, Virginia	3rd International Workshop on the Mars Atmosphere: Modeling and Observations Sponsor: The Lunar and Planetary Institute Contacts: Joel S. Levine joel.s.levine@nasa.gov and Francois Forget Francois.Forget@lmd.jussieu.fr
	November 2008	End of MRO Primary Science Phase; transition to Relay Phase
	November 18, 2008	Start of Mars solar conjunction
<i>Fourth Quarter, 2008</i>		
	December 15–19, 2008 San Francisco, California	Fall meeting, AGU www.agu.org/meetings
	December 24, 2008	End of Mars solar conjunction
	December 26, 2008	Mars equinox (beginning of northern fall)
<i>2009</i>		
	January 7–10, 2009 Long Beach, California	Meeting #213 of the American Astronomical Society http://www.aas.org/
	March 2009 Houston, Texas	Lunar and Planetary Science Conference Deadline for abstracts: TBD

Type	Date & Location	Event Information
	April 2009 Noordwijk, THE NETHERLANDS	International Conference on Comparative Planetology: Venus-Earth-Mars at ESTEC Contact: Augustin Chicarro— Augustin.Chicarro@esa.int
	June 2009	Fourth MSL Landing Site workshop
	June 7–11, 2009 Pasadena, California	Meeting #214 of the American Astronomical Society http://www.aas.org/
	July 7–12, 2009 Melbourne, Australia	7th International Conference on Geomorphology Ancient Landscapes – Modern Perspectives Melbourne Exhibition & Convention Centre There will be dedicated sessions on Planetary Geomorphology and a field trip to examine analog landscapes in South Australia. http://www.geomorphology2009.com/ (Submitted by Mary Bourke, Planetary Science Institute, Tucson, Arizona)
	July 13–18, 2009 Nancy, FRANCE	72nd Annual Meeting of the Meteoritical Society Contact: Marc Chaussidon, Guy Libourel or Bernard Marty http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	October 2009	2009 Mars Launch Period Opens
	October 4–9, 2009 San Juan, Puerto Rico	41st Annual Meeting DPS http://www.aas.org/dps/meetings.html
	October 18–21, 2009 Portland, Oregon	Geological Society of America National Meeting http://www.geosociety.org/meetings/
	December 15–19, 2009 San Francisco, California	AGU Fall Meeting www.agu.org/meetings
<i>2010</i>		
	January 3–7, 2010 Washington, DC	Meeting #215 of the American Astronomical Society http://www.aas.org/
	March 2010 Houston, Texas	Lunar and Planetary Science Conference
	June 6–10, 2010 Miami, Florida	Meeting #216 of the American Astronomical Society http://www.aas.org/
	July 18–25, 2010 Bremen, GERMANY	38th COSPAR Scientific Assembly
	July 25 OR August 1, 2010 Toronto, Ontario CANADA	73rd Annual Meeting of the Meteoritical Society Contact: Dr. G. Srinivasan http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	October 2010	42nd Annual Meeting of the DPS http://www.aas.org/dps/meetings.html
	October 31– November 3, 2010 Denver, Colorado	Geological Society of America National Meeting http://www.geosociety.org/meetings/

Type	Date & Location	Event Information
	December 13–17, 2010 San Francisco, California	AGU Fall Meeting www.agu.org/meetings
<i>2011</i>		
	January 2011 Seattle, Washington	Meeting #217 of the American Astronomical Society http://www.aas.org/
	June 2011 Boston, Massachusetts	Meeting #218 of the American Astronomical Society http://www.aas.org/
	July 2011 Pasadena, California	8th International Conference on Mars California Institute of Technology
	August 2011 Greenwich ENGLAND, UK	74th Annual Meeting of the Meteoritical Society Contact: Gretchen Benedix http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	October 2011 Nice, FRANCE	43rd Annual Meeting of the DPS http://www.aas.org/dps/meetings.html
	October 9–12, 2011 Minneapolis, Minnesota	Geological Society of America National Meeting http://www.geosociety.org/meetings/
	December 12–16, 2011 San Francisco, California	AGU Fall Meeting www.agu.org/meetings
<i>2012</i>		
	August 2012 Cairns, Queensland AUSTRALIA	75th Annual Meeting of the Meteoritical Society Contact: Trevor Ireland http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	August 2012 Brisbane, AUSTRALIA	The 34th International Geological Congress http://www.33igc.org/

Special holidays to consider when scheduling conferences/workshops/meetings:

Rosh Hashanah	9/30/2008	9/19/2009	9/9/2010	9/29/2011	9/17/2012
Yom Kippur	10/9/2008	9/28/2009	9/18/2010	10/8/2011	9/26/2012
(Note that Jewish holidays start at sundown the previous evening).					
Good Friday	3/21/08	4/10/09	4/2/10	4/22/11	
Thanksgiving Day, U.S.	11/27/08	11/26/09	11/25/10		
Thanksgiving Day, Canada	10/13/08	10/12/09	10/11/10		

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EDITORS

Debbie Calderón	Debbie.A.Calderon@jpl.nasa.gov	818-354-9470
Charles Budney	Charles.J.Budney@jpl.nasa.gov	818-354-3981
David Beaty	David.Beaty@jpl.nasa.gov	818-354-7968

Please send your Mars Community Announcements and calendar items for inclusion in next month's email to Debbie Calderón, Debbie.A.Calderon@jpl.nasa.gov, 818-354-9470

All announcements listed in this newsletter will be posted on the MEPAG website, available at <http://mepag.jpl.nasa.gov>.